UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,771	09/17/2003	Stephen Kaminski	Q77159	2952

72875 7590 10/31/2007

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER	
RUSSELL, WANDA Z	
ART UNIT	**PAPER NUMBER**
2616	

NOTIFICATION DATE	DELIVERY MODE
10/31/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
kghyndman@sughrue.com

Office Action Summary	Application No.	Applicant(s)	
	10/663,771	KAMINSKI ET AL.	
	Examiner	Art Unit	
	Wanda Z. Russell	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 recites the limitation "first connection" in claim 1. There is insufficient antecedent basis for this limitation in the claim. Although applicant states in the remarks that they amend the claims, but it does not show in the amended claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-3, and 10** are rejected under 35 U.S.C. 102(e) as being anticipated by Bichot et al. (Pub No. US 2004/0001468).

For **claim 1**, Bichot et al. teach an interface unit (IWU, 18-Fig. 1) comprising:

a first component for establishing a connection (20-Fig. 1) to a radio network controller (RNC, 22-Fig. 1) of a radio network sub-system (12-Fig. 1) by means of a first communication protocol (21-Fig. 1, and [0015], line 6 to end),

a second component for establishing a connection (3 paths between MT to AP – Fig. 1) to at least one access point (AP, 16-Fig. 1) of a wireless local area network (WLAN, 10-Fig. 1) by means of a second communication protocol ([0014], line 14),

a third component for converting the second communication protocol to the first communication protocol and for converting the first communication protocol to the second communication protocol ([0017], lines 6-8, and 1-end),

a fourth component for providing data indicative of a load situation of at least one access point to the radio network controller (signaling path –Fig. 1. The signaling requires response from receivers to establish the signaling path. Whether the initiators get response from the network is directly related to load situation).

For **claim 2**, Bichot et al. teach the interface unit of claim 1, the first connection being a long distance connection, such as an ATM-type or IP-type connection (MT-AP-Internet –Fig. 1, and [0022], line 7).

For **claim 3**, Bichot et al. teach the interface unit of claim 1, the second connection being a short distance connection, such as an Ethernet-type connection (IEEE 802.11, [0014], line 15).

5. **Claim 10** is a method claim corresponding to claim 1. Therefore it is rejected for the same reason above.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bichot et al. (Pub No. US 2004/0001468), further in view of Chuah (Pub No. US 2003/0076803).

Bichot et al. teach everything claimed as applied above (see claim 1). However, Bichot et al. fail to specifically teach the interface unit of claim 1 further comprising a fifth component for balancing the load of a number of the access points being comprised within a logical cell of the wireless local area network.

Chuah teaches the interface unit of claim 1 further comprising a fifth component for balancing (Abstract, last line) the load of a number of the access points being comprised within a logical cell of the wireless local area network ([0030], lines 1-3).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine [Bichot et al.] with [Chuah] to obtain the invention as specified for improving the system performance.

8. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bichot et al. (Pub No. US 2004/0001468), further in view of Soderbacka et al. (Pub No. US 2003/0114158).

Bichot et al. teach everything claimed as applied above (see claim 1). However, Bichot et al. fail to specifically teach the interface unit of claim 1 further comprising a sixth component for hand over control of wireless terminals between the access points being comprised within a logical cell of the wireless local area network.

Soderbacka et al. teach the interface unit of claim 1 further comprising a sixth component for hand over control ([0029], line 2) of wireless terminals (5-Fig. 1) between

the access points (1, 2 –Fig. 1) being comprised within a logical cell of the wireless local area network ([0027]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine [Bichot et al.] with [Soderbacka et al.] to obtain the invention as specified for reliability of different types of access points.

9. **Claims 6, and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah (Pub No. US 2003/0076803), further in view of Bichot et al. (Pub No. US 2004/0001468).

For **claim 6**, Chuah teaches a telecommunication system (Fig. 3) comprising:

a radio network controller (RNC 1-Fig. 3) for coupling to a core network (86-Fig. 3) and for coupling to one or more Node Bs (82a, 82b, 82c-Fig. 3),

a wireless local area network having a number of access points (AP1-3 –Fig. 6),

an interface unit ([0009], lines 20-21) for coupling the access points to the radio network controller, the interface unit having a component for providing data indicative of a load situation of the access points to the radio network controller.

However, Chuah fails to specifically teach the interface unit having a component for providing data indicative of a load situation of the access points to the radio network controller.

Bichot et al. teach the interface unit having a component for providing data indicative of a load situation of the access points to the radio network controller (signaling path –Fig. 1. The signaling requires response from receivers to establish the

signaling path. Whether the initiators get response from the network is related to load situation).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine [Chuah] with [Bichot et al.] to obtain the invention as specified for the advantage of a loose coupling without the risk of sending sensitive control information over a non-secure link.

For **claim 7**, Chuah and Bichot et al. teach everything claimed as applied above (see claim 6). In addition, Chuah teaches the telecommunication system of claim 6 further comprising a component for balancing (Abstract, last line) the load of the access points being comprised within a logical cell of the wireless local area network, the component for load balancing being comprised in the interface unit ([0009], lines 20-21, and [0030], lines 1-3).

10. **Claims 8, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah (Pub No. US 2003/0076803), further in view of Bichot et al. (Pub No. US 2004/0001468), as applied to claim 6 above, and Soderbacka et al. (Pub No. US 2003/0114158).

For **claim 8**, Chuah and Bichot et al. teach everything claimed as applied above (see claim 6). However, Chuah and Bichot et al. fail to specifically teach the telecommunication system of claim 6 further comprising a component for hand over control of wireless terminals between access points being comprised within a logical cell of the wireless local area network.

Soderbacka et al. teach the telecommunication system of claim 6 further comprising a component for hand over control ([0029], line 2) of wireless terminals (5-Fig. 1) between access points (1, 2 –Fig. 1) being comprised within a logical cell of the wireless local area network ([0027]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine [Chuah] with [Bichot et al.] and [Soderbacka et al.] to obtain the invention as specified for reliability of different types of access points.

For **claim 9**, Chuah, Bichot et al. and Soderbacka et al. teach everything claimed as applied above (see claim 6, and 8). In addition, Soderbacka et al. teach the telecommunication system of claim 8, the component for hand over control being comprised in the radio network controller ([0007], lines 8-10).

Response to Amendment

11. Applicant's amendment filed September 19, 2007 has been received and considered. However, the amended claims do not show the amended claims 2 and 3, and only shows amended claim 10.

Response to Arguments

12. Applicant's arguments filed September 19, 2007 have been fully considered but they are not persuasive.

13. For claim 1, applicant argues that two coupling architectures are employed to provide communication (or connectivity) handover between UMTS1 and WLAN: tight coupling and loose coupling, and Bichot et al. only teach loose coupling.

In response, the Examiner respectfully disagrees.

Applicant does not claim in claim 1 that the interface unit only handles tight coupling. On the contrary, claim 1 describes two protocols, therefore the interface unit may handle two kinds of networks. In addition, in claim 10 that is a method claim of claim 1, applicant describes both 3Gpp and WLAN networks. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

14. Still for claim 1, applicant argues that paragraph 17 of the reference only mentions a communication between a radio network controller (RNC) 11 and the interworking unit (IWC) 18, but does not disclose conversion of any protocol.

In response, the Examiner respectfully disagrees.

The paragraph 15 of the reference describes the claimed "first protocol" for the communication between 10 and 12 in Fig. 1, while the paragraph 14 of the reference describes the claimed "second protocol" for the communication between 10 and 14 in Fig. 1. Again, same as described in Section 13 above, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. There is not limitation in claim 1 that the claimed interface unit only handles tight coupling. The paragraph 17 of the reference teaches conversion of protocols.

15. Still for claim 1, applicant argues that the signal path of Fig. 1 does not teach the claimed fourth component for providing data indicative of a load situation of at least one access point (AP) to the RNC.

In response, the Examiner respectfully disagrees.

The signaling requires response from receivers to establish the signaling path. Whether the initiators get response from the network is related to load situation. Again, same as described in Section 13 above, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. There is not limitation in claim 1 that the claimed interface unit only handles tight coupling.

16. For claim 4, again, same as described in Section 13 above, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. There is not limitation in claim 1 that the claimed interface unit only handles tight coupling. The 103 rejection is still valid.

17. For claim 5, applicant argues that the handover is not between two of a WLAN, a UMTS, 3G UTRAN, and 2G GSM.

In response, the Examiner respectfully disagrees.

It is obvious that if the handover can be processed between two different kinds of networks, it can be certainly processed between two of a WLAN. And, as to the argument that the handover is performed by a component of the interface unit, not by any RNC, AP or terminal, the examiner interprets that from the Fig. 1 of Soderbacka et al. the terminal plays the same function as the claimed interface unit does. The 103 rejection is still valid.

18. Claims 6-9 are rejected for the same reason above.

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda Z. Russell whose telephone number is (571) 270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZR WZR

Seema S. Rao 10/26/07
SEEMA S. RAO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600